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ABSTRACT

Although knowledge of how the population of an area is structured and how it is constantly changing will not solve problems created by the changes, it will provide a basis for understanding the needs of an area and for better program planning. Population processes that produce growth or decline in areas include natural increase, migration, and changes in age structures. National trends related to household size, family structure, women's participation in the labor force, and income distribution also impact on population characteristics. Census data serve as a major source of information to study changes in an area's population. To understand and use the census data, it is important to consider the geographic areas for which census data are issued; the items on the 1980 questionnaire; the various printed reports, computer tapes, and microfiche from the 1980 Census, and the information in each; and the organizations that make census data and other sources of demographic data available to the public. The paper uses charts and graphs to illustrate population trends on different types of counties, lists key contact persons for census data for 13 western states, defines Census Bureau geographic units, and cites additional sources for population change information. (NEC)

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Population change in local areas

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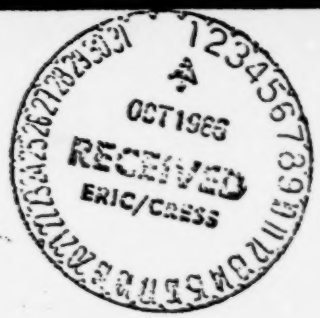

Population change in local areas

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The population of a local area is always changing. Some changes depend on the growth or decline of an area's population and are influenced by the kinds of people who are coming to or leaving the area. Other changes are due to broad national trends. Whatever the sources of population change, it is important to be aware of what is occurring in your local area. Changes in a population increase the need for certain types of facilities and services and reduce the need for others. In an era of budget constraints and fiscal austerity, careful planning for all of a community's different groups is essential. A knowledge of how the community's population is structured, and how it is changing, is one important element of such planning.

The population processes that produce growth or decline in an area, and some of the implications of these processes, are the subject of the first section of this report, and several national trends are discussed in terms of their impact on the population characteristics of local areas. The second section focuses on methods of locating necessary information to study changes in an area's population.

Implications of population change in local areas

Population growth and decline. Growth or decline in an area's population is the result of two processes: natural increase or decrease, and net migration. Natural increase is the difference between births and deaths. Net migration is the balance between the number of persons who move into an area and those who leave.

Knowledge of how natural increase and net migration contribute to an area's growth or decline, when each is important, and how they interact, can lead to a better understanding of the types of persons being added to, or leaving, an area.

How natural increase works. Natural increase (births minus deaths) is the result of three factors: the age of an area's population, the average number of children people expect to have, and how long people are likely to live. In the U.S. today, the last two factors are practically the same for all areas, therefore, the age of local populations is very important in determining the difference between areas in rates of natural increase. If there are a large number of young adults in the population, there will be a large number of births, simply because this is when most people form families and have children. These births will more than offset deaths, and natural increase will contribute significantly to growth. If a large proportion of the population is over 65, the number of deaths may almost equal the number of births, and natural increase will be small, or there will be natural decrease, i.e., more deaths than births.

In the past, natural decrease has been rare. Birth rates nationwide were high during the baby boom, and when they declined to current low levels, the large number of women who were born during the baby boom had reached childbearing age. Although these women are bearing fewer children, the large number of women offsets the low birth rates, so that there continue to be more births than deaths in most areas. If an area has experienced substantial outmigration for several decades, however, there may be a large number of people over 65 but few young adults so there may be more deaths than births. By looking at migration, we can see why this is likely to happen.

How migration works. The causes of migration are not clear cut, but an expanding economy that leads to new jobs and a low unemployment rate, will attract working people to an area. Scenically beautiful areas may grow if people feel they are within commuting distance of jobs, if they wish to adopt an alternative life style, or if older people

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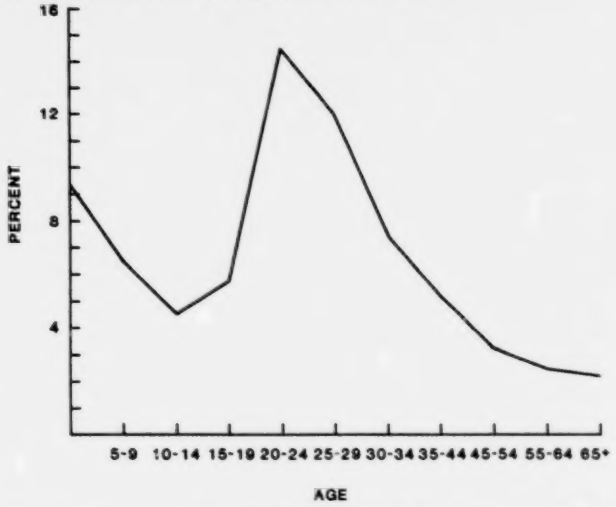
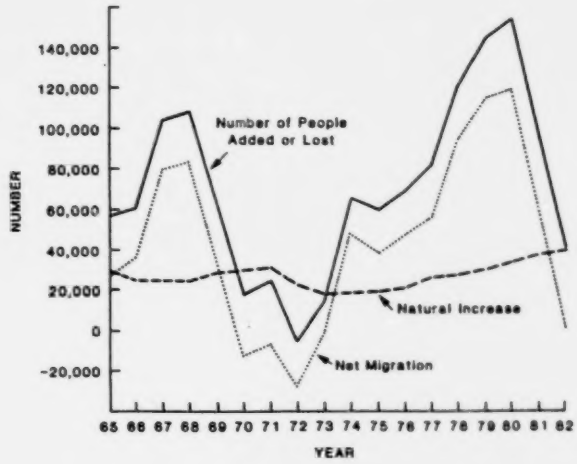
Figure 1. Percent of the U.S. population, by age, moving to a different county between 1975 and 1976.



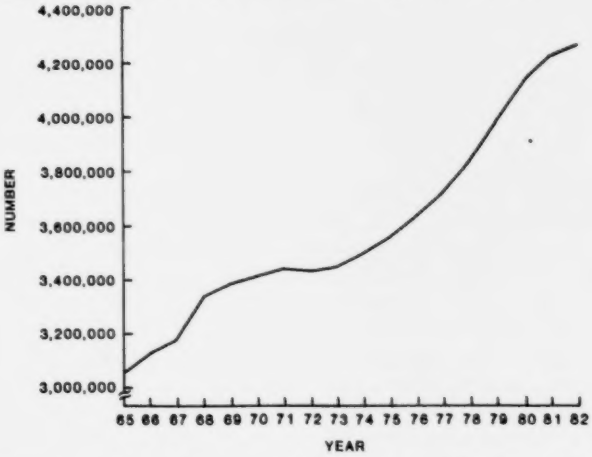
(Source: "Geographical Mobility: March 1975 to March 1976." *Current Population Reports*, Series P-20, No. 305. Washington, D.C.: U.S. Government Printing Office. 1977.)

Figure 2. Components of population change in Washington, 1965-82.



(Source: *1982 Population Trends for Washington State.* Office of Financial Management. August, 1982. Page 15.)

Figure 3. Population growth in Washington, 1965-82.



(Source: *1982 Population Trends for Washington State,* op. cit.)

choose to retire there. On the other hand, outmigration is likely in an area that is stagnant or declining, and where unemployment is high, because unemployed people will look elsewhere for work.

Just as births and deaths tend to be concentrated in certain age groups, so is migration. Most migration occurs among young adults, who leave home to go to school and to look for jobs. They change jobs, get married and then have children. If unemployment hits an area suddenly through a plant shutdown, young adults are less likely to own a home and are thus more mobile. If an area has been slowly stagnating, young adults will find it difficult or impossible to get a steady job in the first place, and will leave to work in an area where jobs are more plentiful.

Figure 1 shows the percentage of people, by age, who lived in a different county in the United States in 1976 than they had in 1975. Nearly 15 percent of the 20-24 year olds, and around 12 percent of the 25-29 year-olds, lived in a different county after one year. Less than 5 percent of the persons in any of the age groups over 45 changed counties in a year.

Migration of older people can still be important in selected areas if a large number retire to a specific location, but in general, areas with high rates of inmigration are getting a proportionately larger number of young adults, and those with high rates of outmigration are losing them.

Over time, this can have an impact on the age structure of an area. As Figure 1 also shows, 9 percent of the children under five lived in a different county after a year. These are the children of the mobile young adults. If these young adults do not actually bring children with them, they bring with them the strong possibility of having children, since those most likely to migrate are also most likely to have children. Areas with long-term outmigration aren't just losing people, they are losing their young adults, and the children of those young adults.

Interaction between net migration and natural increase. Globally, the only way the world's population changes is through natural increase. For nations, the balance between births and deaths is generally far more important for growth or decline than is migration. But at the subnational level, whether the area be a region, a county or a community, the situation changes. Migration can be much more important in determining whether an area grows or declines.

This point is illustrated in Figure 2, which shows the number of people who were added to or lost from Washington state's population in each year between 1965 and 1982, and the contribution each year from net migration and natural increase. The number of people added through natural increase has fluctuated between a low of 17,000 in 1973 to a high of 38,000 in 1982, but the fluctuations in net migration to and from the state have been much more dramatic, shifting from high net inmigration in the late 60s to net outmigration with the economic recession of the early 70s. As the economic climate of the state improved in the mid to late 70s, migrants once again came to the state

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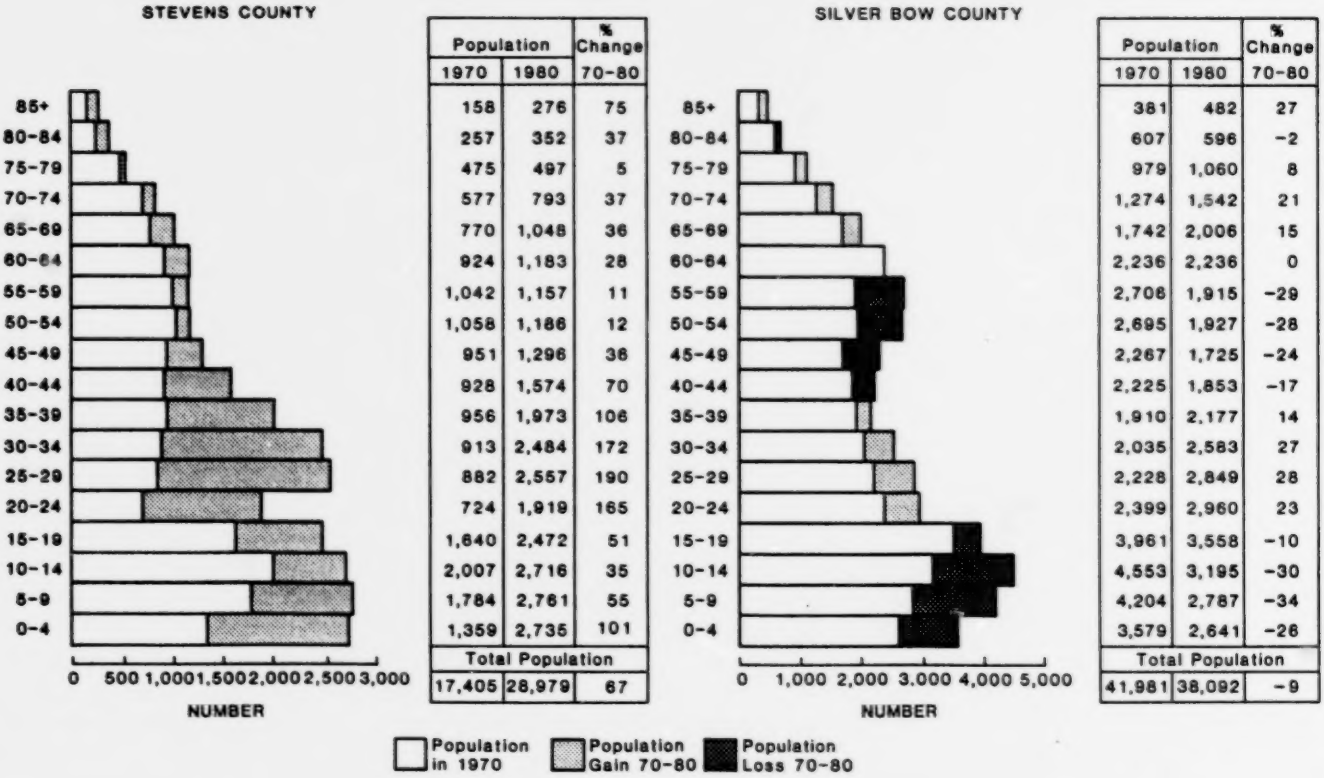
Figure 4. Change in the populations of Stevens and Silver Bow Counties by 5 year age groups, 1970-80.



	Population		% Change
	1970	1980	70-80
85+	158	276	75
80-84	257	352	37
75-79	475	497	5
70-74	577	793	37
65-69	770	1,048	36
60-64	924	1,183	28
55-59	1,042	1,157	11
50-54	1,058	1,186	12
45-49	951	1,296	36
40-44	928	1,574	70
35-39	956	1,973	106
30-34	913	2,484	172
25-29	882	2,557	190
20-24	724	1,919	165
15-19	1,640	2,472	51
10-14	2,007	2,716	35
5-9	1,784	2,761	55
0-4	1,359	2,735	101
Total Population			
	17,405	28,979	67

	Population		% Change
	1970	1980	70-80
85+	381	482	27
80-84	607	596	-2
75-79	979	1,060	8
70-74	1,274	1,542	21
65-69	1,742	2,006	15
60-64	2,236	2,236	0
55-59	2,708	1,915	-29
50-54	2,695	1,927	-28
45-49	2,267	1,725	-24
40-44	2,225	1,853	-17
35-39	1,910	2,177	14
30-34	2,035	2,583	27
25-29	2,228	2,849	28
20-24	2,399	2,960	23
15-19	3,961	3,558	-10
10-14	4,553	3,195	-30
5-9	4,204	2,787	-34
0-4	3,579	2,641	-26
Total Population			
	41,981	38,092	-9

(**Source:** Table 20, *General Population Characteristics for Washington and Montana,* 1980 Census of Population. Washington, D.C., U.S. Government Printing Office.)

in large numbers. With the state's most recent recession, however, the balance has again shifted to net outmigration.

Figure 3 shows the actual number of people in the state for each year since 1965. It is clear that this does not fluctuate the way the number of people added to or lost from the state's population does on a yearly basis, but it is also clear that migration to or from an area can have a dramatic and sudden impact on population change in an area, whereas the contributions from natural increase are much more constant.

Changing age structures. The interaction over time between net migration and natural increase generates an area's age structure. Demographers and planners are especially interested in how a population is distributed into different age categories, because so much of what we do, what we need, and what we buy, depends on how old we are.

The baby boom of the 50's, followed by the baby bust of the 70's, are good illustrations at the national level of the demands created by a changing age structure. The baby boom created a need for more maternity wards, obstetricians and pediatricians, followed by grade schools, high schools, and finally colleges. Today, members of the baby boom are 25 to 35 years old and competing for jobs, or trying to climb a career ladder. Concern has been expressed for some time about the potential impact of this large group of future retirees on an already troubled social security system.

The period of high fertility in the 50's was followed by one of particularly low fertility. Many grade schools have been closed, and colleges now face declining enrollments. Those institutions already on a shaky financial basis face closure because of the decreasing number of college-age students.

Demographers use population pyramids to illustrate an area's age structure and changes in it. Figure 4 compares the age structure of two counties and shows the number of persons added to or lost from each age group in the last decade. Silver Bow County (Butte) in Montana, where copper mining was the main activity, has lost population continuously since the 1930s. The high birth rates of the 1950's slowed, but did not halt, this process. With the shutdown of Anaconda's copper smelter in 1980, and copper pit in 1982, decline has accelerated. The impact of these closures is not reflected in the population pyramid, which represents only the period from 1970 to 1980.

Stevens County, by comparison, is located in a forested area in northeastern Washington, and the southern part of the county is within commuting distance to the nearby metropolitan area of Spokane. Although the county lost population between 1960 and 1970, it grew substantially between 1970 and 1980.

Because of their different patterns of decline and growth, these counties have dramatically different patterns of gains and losses in each age group. No age group in Stevens County lost population, but the young adult groups showed the greatest gains, with the number of 20 and 35 year-olds increasing by more than 165 percent. Inmigration of young adults magnified the baby boom, which was entering the

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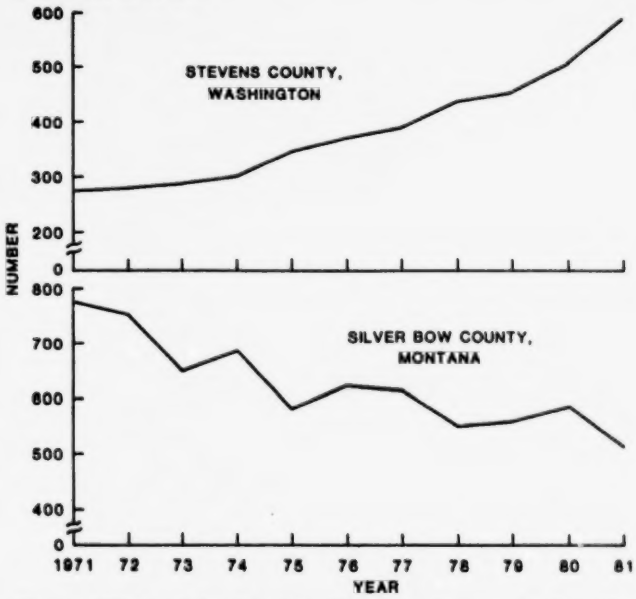
Figure 5. Number of births in Silver Bow and Stevens Counties, 1971-81.



(Source: *1982 Population Trends for Washington State, op. cit.* Page 17. and *Future of Education in Butte,* Bureau of Educational Research and Field Services, College of Education, Montana State University, 1983.)

same age groups. Because there are so many young adults who have had children, contrary to national trends, none of the younger age groups has lost population.

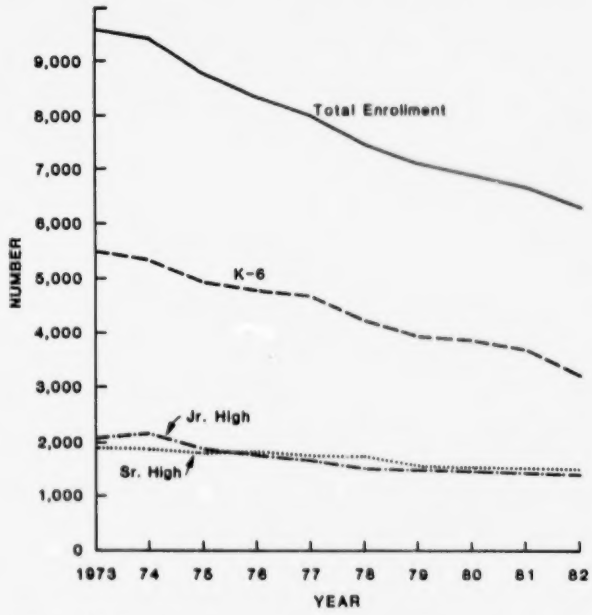
Although Silver Bow County lost population in the last decade, the number of young adults did increase slightly. There were so many young adults around from the baby boom, that outmigration by this group was countered by aging. The increase, however, was too small to counter the baby bust, and there have been substantial losses in each of the younger age groups. There was also a loss of 50 to 60 year-olds, reflecting the combined effects of low birth rates during the depression and the 50-year history of population loss in the county. The increases in population above age 65 indicate that many who reach retirement age in the county choose to remain there.

Growth through inmigration, or decline through outmigration, has an immediate impact on the number of children added to the community. Figure 5 compares the number of births in Silver Bow and Stevens counties from 1971 to 1981. While births in Silver Bow have decreased, in Stevens County they have risen substantially, translating, of course, into very different school needs between the counties. An analysis of school needs for Silver Bow County has shown that the impact is greatest at the primary school level and less at the junior high and senior high level. (Figure 6)

Changes in each area's age structure will be different, reflecting the history of migration for that area and interaction with broad national trends, such as the shift from high to low fertility. However, in Figure 7 Deavers and Brown (1980) offer a general outline of some impacts to be expected in growth and decline situations.

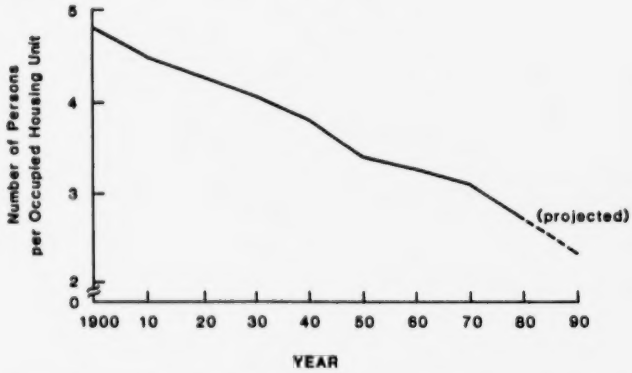
In that figure, growth through inmigration is divided into the impacts to expect if young adults and children migrate to the area, versus those if the elderly choose the area as a place to retire. In decline through outmigration,

Figure 6. Enrollment changes in Silver Bow County, 1973-82.



(Source: *Future of Education in Butte, op. cit.*, Figure 3.)

Figure 8. Population per household in the United States, 1900-1990.



(Source: *Statistical Abstract of the United States, 1972,* Table 47, and *Statistical Abstract of the United States, 1984,* Table 60, Washington, D.C., U. S. Government Printing Office.)

primarily young adults and children leave the community. Research has shown that in a decline older adults often choose to remain in the community, which is illustrated by increases in the retirement age population in Silver Bow County, Montana.

Population characteristics. In addition to understanding how births, deaths, and migration interact to affect an area's pattern of growth or decline and its age structure, it is important to be aware of the population characteristics of an area and how national trends affect these characteristics. Here we will consider four broad characteristics: household size, family structure, women's participation in the labor force, and income distribution. The impact of national trends on these characteristics in different types of counties will be illustrated with information from Washington.[1]

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Figure 7. Implications of Population Gain and Loss at the Community Level

Growth Through Immigration

Type of Population Change	Impact of Population Change On:		
	Age Composition	Households	Labor Force
Gain:			
a Young adults and children	Becomes younger	More larger	More workers More potential workers
b Elderly	Becomes older	More smaller	No direct impact
		Implications for Service Delivery:	
	Increased Need for: •Educational resources and facilities •Day care facilities •Pediatric and obstetrical medical care •Recreation and other services oriented to individuals	**Increased Need for:** •New housing units •Water, sewer, utilities, trash collection, fire protection •Residential roads •Sidewalks	**Increased Need for:** •Economic expansion and/or commuting to outside jobs •Investments in community infrastructure •Commercial credit •Potential volunteer workers to help the elderly

Decline Through Outmigration

Type of Population Change	Impact of Population Change on:		
	Age Composition	Households	Labor Force
Lose:			
Young adults and children	Becomes older	Fewer or constant number Smaller	Fewer workers Fewer potential workers
		Implications for Service Delivery	
	Increased Need for: •Geriatric medical services •Public transportation •Nursing homes •Feeding services	**Reduced Need for:** •Large houses **Increased Need for:** •Smaller housing units and/or apartments **Constant Need for:** •Water, sewer, utilities, trash collection, fire protection	**Need to:** •Contract economic activity •Train local workers •Import outside workers Excess plant capacity and/or underutilized public infrastructure may occur

(**Source:** Modified from Figure 3.1, "The Rural Population Turnaround: Research and National Public Policy," by Kenneth L. Deavers and David L. Brown in *New Directions in Urban-Rural Migration,* edited by David L. Brown and John M. Wardwell, New York: Academic Press, 1980.)

Household size. As Figure 8 shows, the average number of persons living in a household has been declining nationally throughout the century, but the decline was particularly sharp in the last decade. During the 20 years between 1950 and 1970, the average number of persons per household declined from 3.4 to 3.1; in the next 10 years it dropped to 2.7.

This decrease in household size was due to changes in family and household living arrangements. A growing tendency for young adults to move out of their parents' homes before forming their own families is one reason that more people are living alone. In the 1970's most people born during the baby boom, i.e. those born from 1947 to 1956, reached the age when they could make such a move. Older individuals also continue to maintain their own homes after their children leave or after they have been widowed. Between 1970 and 1979, the rising incidence of divorce produced a 50 percent increase in families maintained by only one spouse. Finally, there has been an increasing preference for smaller families, which was evident in the low birth rate of the 1970's.

Because of the trend toward smaller households, the number of housing units has increased much faster than the number of people. Nationally, the population grew by 11.4 percent during the last decade. At the same time, the number of households increased by 27.4 percent. At the county and community level, this means that although the number of persons may decrease, the number of households which need various kinds of services may not. If the overall number of households does decrease, the drop is generally much less than the overall decline in population. For areas of population growth, the rate at which the number of households increases generally far outpaces the rate of increase for the number of people.

For example, in Washington, the rural agricultural county of Garfield witnessed a 15 percent decline in its population in the last decade, but had only a 4 percent decline in number of households. Neighboring Columbia County lost 9 percent of its population, but the number of households in that county grew by 8 percent. In Wahkiakum County, where the population grew by 7 percent, the num-

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ber of households increased 18 percent, and in Douglas County the population grew by 32 percent and the number of households increased by 52 percent. In fact, there were *no* counties in Washington where the number of households grew more slowly than the population.

As Figure 8 shows, the decrease in household size is predicted to continue through 1990, so local areas which are growing can expect the types of service needs associated with households (such as provision of water, sewers, fire protection and road maintenance) to increase more rapidly than the actual number of people would indicate. In areas of stagnation or decline, although the tax base may shrink, the need for many services may not change or may even increase somewhat.

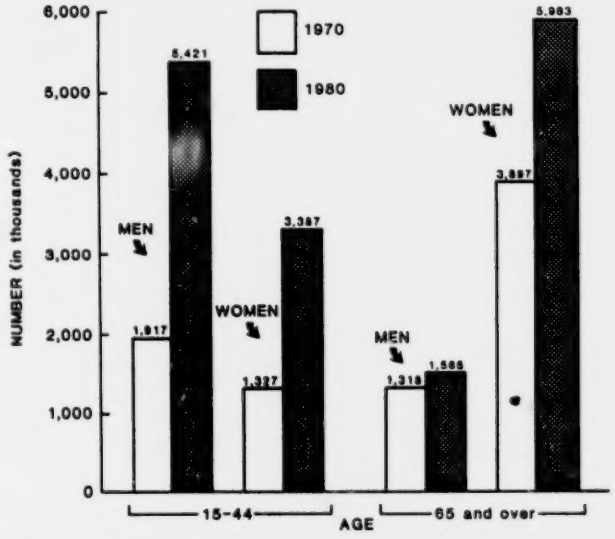
Changes in living arrangements. As noted above, changes in the ways we live together are closely related to the decrease in household size. The number of single-person households has increased by 64 percent, compared to a 27 percent increase for all households. Figure 9 shows the number of men and women in the United States aged 15 to 44, and 65 or over, living alone in 1970 and in 1980. There have been substantial increases in the number of both men and women who live alone between the ages of 15 and 44, but it is apparent that men in this age group are more likely to live alone than women. Young men are somewhat more likely to live alone before marriage than are young women, and in case of divorce in a family with children, the children are more likely to remain with their mother. The situation is different, however, for people 65 and older. There has been very little change in the number of older men who live alone, but a large increase in the number of older women who do so. In fact, women 65 and over are much more likely to live alone than are men or women at any other age. Women generally marry men older than themselves, and their greater longevity means that most wives live longer than their husbands. When older men are widowed, it is usually easier for them to remarry than it is for women.

As the population pyramids for Silver Bow and Stevens counties indicate, because of the general aging of the U.S. population an increasing number of elderly is to be expected whether an area is growing or declining. Consequently, most areas will face increasing service needs for the elderly, many of whom will be women living alone for the first time in a number of years.

Another aspect of changing household and family patterns is the increasing number of single-parent families that result from the high incidence of divorce. The number of married-couple families with children under 18 decreased by 2 percent nationally in the last decade while the number of single-parent families with children under 18 increased dramatically. Those headed by men increased by 81 percent, while those headed by women grew by 91 percent. Ninety percent of all single-parent families with children under 18 are headed by a woman.

In many Washington counties, the number of children under 18 decreased during the decade because of the very low fertility rates of the last 15 years, but these decreases are not enough to counter the trend toward single-parent families. In *every* Washington county, the number of children living in single-parent families increased. For example, in rural agricultural Garfield County, the number of children under 18 decreased by 34 percent, while those living in single-parent families increased by 20 percent. There were

Figure 9. Number (in thousands) of men and women living alone in the United States by age, 1970-80.



(**Source:** *Statistical Abstract of the United States, 1984,* Table 76, Washington, D.C., U.S. Government Printing Office.)

substantial increases at the younger ages, as we saw with the population pyramid for Stevens County where the population under 18 increased by 56 percent, while children in single-parent families increased by 159 percent.

It is clear that the trend toward single-parent families is occurring in all types of counties. Decreasing numbers of children may relieve some areas of certain service needs, particularly those related to educational facilities, but changing family patterns may increase the need of other areas to provide and monitor services such as day care.

Women in the labor force. The incidence of women in the labor force is also changing. In past decades, women were much less likely than men to work, particularly during the years they were bearing and raising children, which produced a characteristic pattern, with many women dropping out of the labor force for a number of years. Figure 10 shows past patterns of participation in the labor force for both men and women, and demonstrates that there have been two important changes in women's participation in the last decade.

First, women between the ages of 16 and 44 are much more likely to work in 1980 than they were in 1970. Although men are still more likely to work, the gap in labor force participation between men and women at the younger ages has narrowed considerably. Second, the pattern of women leaving the labor force to raise children, and then returning, has almost disappeared. The number of women in the labor force with preschool children increased by 47 percent between 1970 and 1980, although overall the number of women with children under six decreased by 1 percent.

What is not apparent in Figure 10 is the fact that women are also working longer. In the past, men were much more likely to work throughout the year than women, but this difference is lessening. In 1969, 67 percent of the men who worked during the year worked 50 to 52 weeks. By 1979, this had dropped slightly to 66 percent. On the other hand, the percent of women who worked for 50 to 52

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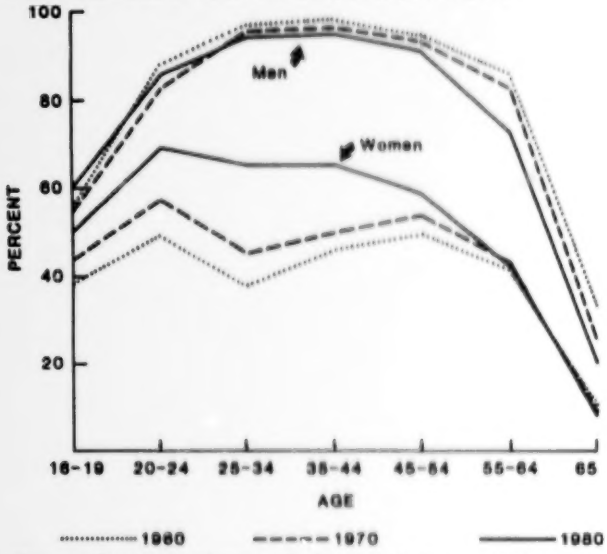
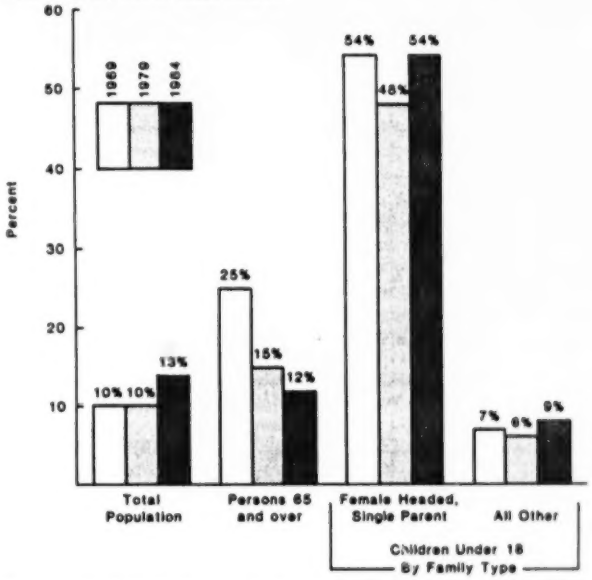
Figure 10. Percent of men and women participating in the civilian U.S. labor force in 1960, 1970, and 1980.



(**Source:** *Statistical Abstract of the United States, 1984,* op. cit., Table 671.)

Figure 11. Percent of the population below the poverty level, 1969, 1979, and 1984.



(**Source:** *Statistical Abstract of the United States, 1986,* Tables 767 and 769, Washington, D.C., U.S. Government Printing Office.)

weeks increased from 42 percent in 1969 to 51 percent in 1979.

The increasing participation of women in the labor force may be attributed in part to the recent low birth rates, since women without children are more likely to work outside the home than those with children. Another factor is that single women are more likely to work, and because they marry later, and are more likely to be divorced or separated, women are more likely to be single now.

Fifty-six percent of the women who work, however, live with their husbands. The increasing number of working wives has supplemented family income, allowing it to keep pace with inflation. This added income also acts as a form of unemployment insurance if one spouse loses a job.

Their increasing education is another reason there are more working women, since the more educated a woman is, the more likely she is to work. Finally, the jobs typically held by women have been growing faster than those traditionally held by men. Women are more likely to hold clerical or service jobs, and these increased by 32 percent during the 70's, while men generally have manufacturing and industrial jobs, which increased only 9 percent during that time.

These trends can be seen in all Washington counties whether they are losing population, remaining stable, or growing. In all counties the number of women in the labor force and working 50-52 weeks during the year increased more rapidly than did the number of men in each case.

For example, in Columbia County the number of men in the labor force decreased by 23 percent, while the number of women increased by 10 percent. In Douglas County, the number of men working 50-52 weeks a year dropped by 24 percent, while the number of women working year round increased by 93 percent.

Consequently, whether communities are growing or declining, they will be faced with more children whose mothers work. In some cases, these will be single-parents; in others, both parents may work; or the mother may be working while the father is unemployed. In the first two cases, an obvious problem is to find care for young children and adequate supervision for older children after school. Although the father may be available for child care, if he is thrust into a domestic role for the first time, that may add to the tensions and strains of being unemployed. In spite of the recent sweeping changes in women's participation in the labor force, child care problems continue to be handled and coped with primarily within the family.

Income. Distribution of income has also changed in recent years. The most dramatic change is the improvement for people age 65 and older. In 1969, a quarter of the people in this age group had incomes that fell below the poverty level. As Figure 11 shows, in 1984 only 12 percent had incomes below the poverty level, compared to 13 percent of the general population. A larger proportion of the elderly are covered by social security and by private pension systems now than in the past. Because working incomes have improved, retirees have put more into pension systems, and are getting more out of them when they retire. Medicare has also helped to reduce high medical costs for this group.

Because the incomes of retirees have improved so dramatically in such a short time, community development specialists note that this group may provide business opportunities that are going unnoticed in a community. Home delivery of all kinds of services; stores, or sections of stores, that cater to the tastes of this age group; and housing developments with a range of basic services, are just some possibilities.[2] Communities that can capture the disposable income of retirees should encounter expanding business opportunities, because the number of people 65 and older will continue to increase well into the next century.

The income situation of children is not as bright, especially if they live in a female-headed, single-parent family.

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Incomes for these families are well below those for two-parent families and, as Figure 11 shows, in 1984 over half of the children in such families lived below the poverty level. Child support, even when available, usually does not come close to providing the income of a two-parent family, for two reasons: as indicated earlier, two-parent families are increasingly likely to have two incomes; and a single mother who works is likely to earn subsstantially less than a man, because women are concentrated in relatively low-paid occupations. It is unlikely that living conditions for children in female-headed, single-parent families will improve in the near future. None of the factors that produce these problems—high divorce rates, difficulty in obtaining adequate child support, and poorly paid employment—is undergoing rapid change.

Finding population data

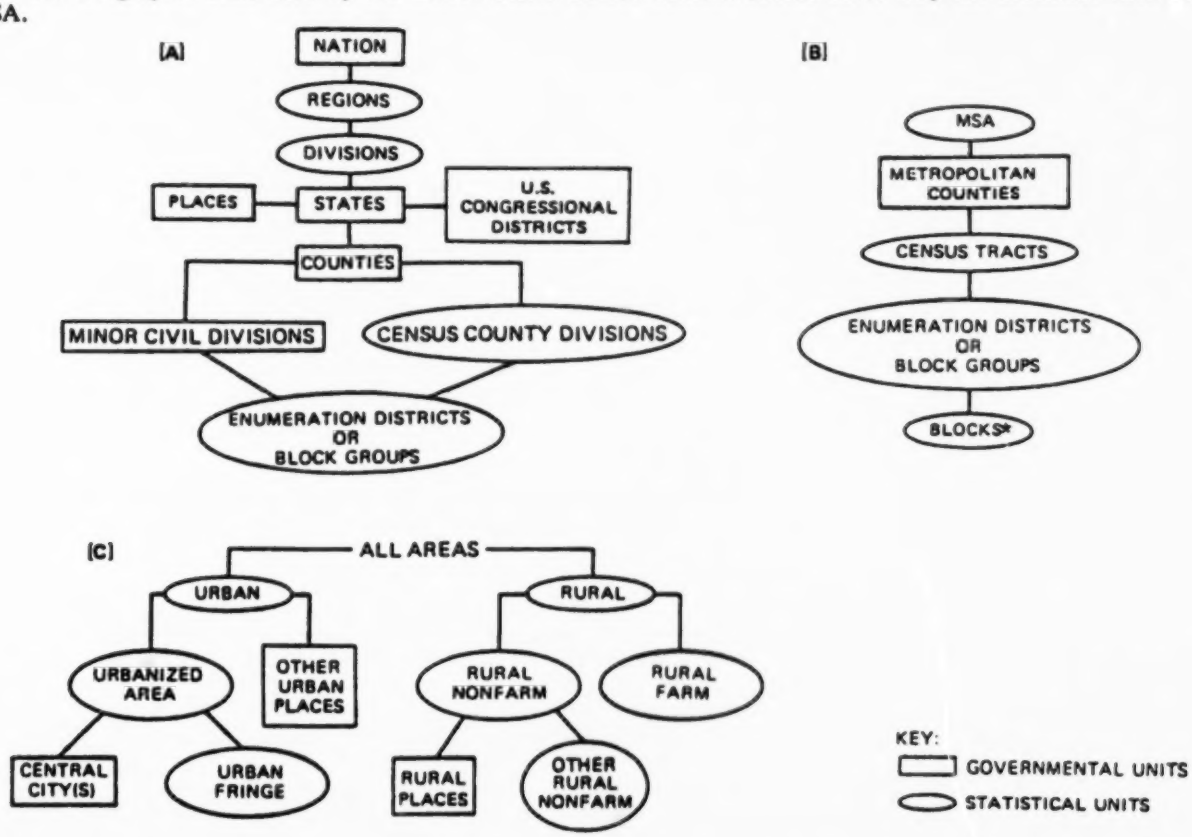
Census data. Most of the data discussed in the previous section came from the decennial census. The accurate and knowledgeable use of census data is extremely valuable in a number of ways to planners, administrators, citizen groups and others. Certainly, it is the most general, the cheapest, and the most accessible source of data that is available for many variables. Such data may be used to provide a descriptive "snapshot" of an area at one point in time, but perhaps more importantly, it can be linked with similar data from the 1970 or earlier censuses to give valuable insights into the way an area is changing and implications the changes have for programs, services, and other citizen concerns.

Census data are used increasingly to determine the distribution of funds among existing programs and to justify the initiation, continuation or elimination of programs. The need for census data does not end, however, once program funding is secured. The successful implementation of a program often depends in part on the judicious use of such data to locate or "target" a program in the areas that need it most.

To understand and use the census as a data source, it is important to consider the geographic areas for which census data are issued; the items on the 1980 questionnaire; the various printed reports, computer tapes, and microfiche from the 1980 Census, and the information in each; and the organizations that make census data and other sources of demographic data available to the public.

Geographic units used by the Census Bureau. The Census Bureau issues data for a wide variety of geographic units, and it is important to be aware of these units in order to efficiently locate data for a specific area, especially printed material. At the beginning of each volume of information from the decennial census, there is usually a table-finding guide which classifies the type of data and its location in that volume by particular geographic areas. One need only scan this table to see if the type of data for the area in which one is interested is in that volume.

Figure 12. Geographic units used by the United States Census Bureau. Blocks cover only the urbanized area of an SMSA.



(Source: *Census '80: Continuing the Factfinder Tradition,* Charles P. Kaplan and Thomas L. Van Valey. Washington, D.C., U.S. Government Printing Office, 1980. Page 106.)

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Many people may not be aware that data for small areas (i.e., those below the county level, such as census county districts, enumeration districts, census tracts, or block groups) are available *in abundance*. There is a hitch, since data for these areas are generally available only on microfiche or computer tapes, but use of these data can be extremely valuable, for example, to target the area of a community or county most in need of a social program, or to assess trends or problems that characterize a segment of an area, but not the area as a whole.

Finally, different geographic units may be used for comparison purposes, to highlight a problem or need by demonstrating ways a particular area differs from the larger area in which it is included. For example, the percent of the population that is Hispanic, Native American, or Black in a county can be compared with that of the state to demonstrate concentration of that minority group in the county. Or the median income of a census tract may be shown to be well below that for the city as a whole, in order to justify a social or a housing program. An awareness of the variety of geographic areas for which data are available should help in choosing the most appropriate areas for comparison.

The three diagrams in Figure 12 are provided by the Census Bureau to clarify the number of different geographic units for which data are available, and to indicate the hierarchical relationships between them. As the Figure indicates, some of these units are legally formed governmental units such as states, counties, or urban and rural places. Others are statistical units that have been created by the Census Bureau for both the collection and issuance of data. (See Appendix A for a definition of each of the geographic units in Figure 12.)

Use of Census maps is important for identification of the geographic areas, and some publications include maps. The volume *Number of Inhabitants* has maps showing "Census County" or "Minor Civil Divisions" and "Urbanized Areas." Generally, maps are provided with Census Tract volumes and with block statistics microfiche. Other maps may be obtained by contacting the State Data Center (see Table 4).

How data is classified. In addition to understanding the geographic areas used, it also helps to be familiar with two other important distinctions when locating census data: the division between 100 percent and sample items, and between population and housing items.

Sample and 100 Percent items. In 1980, the Census Bureau had two questionnaire forms, often referred to as long and short forms. The short form of the questionnaire contained the items that were asked of every household (thus the 100 percent items). More detailed information was on the long form of the questionnaire which was sent to approximately 20 percent of the households (thus the reference to a sample). Sample items are *not* published in their original form, however, but are inflated to represent the total population of an area. This process involves statistical adjustments of the sample items that are not involved in the compilation and reporting of the 100 percent items, so data from the sample items are generally published later than those from the 100 percent items.

Population and housing items. Census questionnaires are sent to households, *not* to individuals. However, the Census Bureau does make special efforts to contact individuals who live in group quarters or who have no permanent address with "special place enumerators" and with transient and mission nights. Both the long and short forms of the questionnaire are designed so that each of the population items may be answered for every person in a household, with the exception of some items on the long form, eg. veteran status, number of births, employment, and income, which are asked only of persons 15 years of age and older. Therefore, population items refer to individual, or household, or family characteristics, while housing items refer to the characteristics of a particular housing unit.

As we will see in the discussion of printed reports, this distinction is retained when census data are issued: some reports are prefaced with a PC, others with an HC, and a few with a PHC. The PC is an abbreviation for Population Census and these volumes contain only population items; those with an HC refer to Housing Census and contain only housing items; those with a PHC contain both population and housing items. Table 1 uses two important distinctions to classify the items on the 1980 questionnaire.

Printed reports, computer tapes and microfiche from the 1980 Census. Information from the 1980 Census has been issued in three formats: printed reports, computer tapes, and microfiche. Most people who use census data are probably more familiar with at least some of the printed reports than they are with the computer tapes or microfiche. They may also be familiar with one of the major shortcomings of printed reports—the difficulty in obtaining data for small geographic units i.e., subdivisions of counties, communities under 10,000 (especially those under 2,500), and subdivisions of communities.

Table 2 gives the types of geographic units for which at least some information is provided in a particular printed report. From this table, it is clear that information on SMSA's, counties, and cities of 50,000 or more is available in almost every printed report, however, except for comparison purposes, information on these large geographic units is often not very helpful. Community groups and agencies, and the people who represent them, are more interested in their own, usually small, communities, or subdivisions thereof.

Although it may appear from Table 2 that there is a fair amount of data on smaller communities (those under 10,000), this table exaggerates the amount of data available from smaller geographic areas in two ways. First, three of the reports (PHC80-P, PHC80-V, and PC80-1-A) which contain information on small communities give *only* population and housing counts (i.e., the number of people and/or housing units) for each geographic area.

There are also several reports (PC80-1-B, PC80-1-C, HC80-1-A, and HC80-1-B) which contain information on a wide variety of geographic areas, and although small geographic areas are included in these reports, the amount of information available is minimal. On the other hand, these same reports contain much more detail for the larger geographic units. In general, the larger the geographic unit, the more *printed* data there is available. Given this general rule, it is important to highlight what is available in printed form for small communities and for subdivisions within a community. A very useful report for small communities is *Summary Characteristics for Governmental Units* (PHC80-3). Although this report does not contain information on subdivisions within a community (such as blocks or enumeration districts), it has been issued for any unit that qualifies for revenue sharing, no matter how small, and the type of information it contains (education, employment,

Table 1. Subject items from the 1980 Census

100 Percent Items	
Population	**Housing**
Household relationship*	Number of units at address
Sex	Access to unit
Race*	Complete plumbing facilities*
Age	Number of rooms
Marital status	Tenure (whether unit is owned or rented)
Spanish/Hispanic origin or descent*	Condominium identification*
	Value of home (owner-occupied units and condominiums)*
	Contract rent (renter-occupied units)*
	Vacant for rent, for sale, etc.; and duration of vacancy

Sample Items	
Population	**Housing**
School enrollment	Type of unit and units in structure
Educational attainment	Stories in building and presence of elevator
State or foreign country of birth	Year built
Citizenship and year of immigration	Year moved into this house
Current language and English proficiency*	Acreage and crop sales
Ancestry*	Source of water
Place of residence five years ago	Sewage disposal
Activity five years ago	Heating equipment
Veteran status and period of service*	Fuels used for house heating, water heating and cooking
Presence of disability or handicap*	Costs of utilities and fuels
Children ever born	Complete kitchen facilities
Marital history	Number of bedrooms
Employment status last week	Number of bathrooms
Hours worked last week	Telephone
Place of work	Air conditioning
Travel time to work*	Number of automobiles
Means of transportation to work	Number of light trucks and vans*
Number of persons in carpool*	Homeowner shelter costs for mortgage, real estate taxes, and hazard insurance
Year last worked	
Industry	
Occupation	
Type of employment	
Number of weeks worked in 1979	
Usual hours worked per week in 1979*	
Number of weeks looking for work in 1979*	
Amount of income in 1979 by source	

*Items that were new with the 1980 Census, or that have important differences from 1970 Census items.
Source: Page 170 in Kaplan and Van Valey, *op. cit.*

English proficiency, income-poverty, disability, etc.) should be useful both in program planning, and in applying for funds from a variety of federal programs.

Counties that are part of an SMSA have some advantage in terms of the amount of available data for community subdivisions, such as census tracts and blocks. Two reports, one on census tracts and one for blocks, have been released for these areas. Although the report for blocks has been released on microfiche only, the data are still more accessible than data on computer tapes.

The microfiche on block statistics have been issued for all central cities of SMSA's, towns, and cities within the Urbanized Areas of an SMSA, cities of 10,000 or more, and any other community that contracted with the Census Bureau for block statistics. Although only a small number of variables are included in these reports, many towns and cities have this information at the block level.

In spite of these reports, it is still very likely that a person will run out of sources of printed information before running out of questions! It is simply too expensive for the Census Bureau to publish detailed printed reports for all of the smaller geographic units throughout the United States. Instead, these data and much more are made available on computer tapes. Most of the information of interest to general users is available on what has been termed Summary Tape Files 1 through 4. (Other 1980 Census tapes have fairly specific purposes—redistricting, identification of geographic codes, geocoding, etc.). Detailed information on the population and housing items from both the 100 percent and sample questionnaires often down to the block, block group, or enumeration district level can be obtained from Summary Tape Files 1 through 4.

Table 2. Geographic units covered in printed reports from the 1980 Census

Geographic unit	Report											
	PHC80-P Preliminary Pop./Housing Counts	PHC80-V Final Pop./Housing Counts	PHC80-1 Block Statistics[1]	PHC80-2 Census Tracts	PHC80-3 Summary Char. for Gov. Units	PH80-1-A Number of Inhabitants	PC80-1-B Gen. Pop. Characteristics	PC80-1-C Gen. Social and Econ. Char.	PC80-1-D Detailed Pop. Char.	HC80-1-A Gen. Housing Characteristics	HC80-1-B Detailed Housing Char.	HC80-2 Metropolitan Housing Char.
United States	X	X				X	X	X	X	X	X	X
State	X	X			X	X	X	X	X	X	X	X
SMSA's and SCSA's	X[2]	X	X[3]	X[3]	X	X	X	X	X[4]	X	X	X
Urbanized areas	X					X	X	X		X	X	
Counties	X	X	X[3]	X[5]	X	X	X	X	X	X	X	
Rural population by county						X	X	X		X	X	
Farm population by county								X			X	
Places (by population size)												
Under 1,000	X[7]	X	X[8]		X[7]	X						
1,000 to 2,500	X[7]	X	X[8]		X[7]	X	X			X		
2,500 to 10,000	X[7]	X	X[8]		X[7]	X	X	X		X	X	
10,000 to 50,000	X[7]	X	X	X	X[7]	X	X	X		X	X	
50,000 and over[9]	X[7]	X	X	X	X[7]	X	X	X	X[10]	X	X	X
Minor civil divisions or census county divisions[11]	X	X	X[12]		X[13]	X	X			X		
Census tracts			X[14]	X								
Blocks			X									
Congressional Districts	X	X										
Indian Reservations							X	X		X	X	

U.S. Data are presented in separate U.S. summary reports in these series.

[1]Available on microfiche only

[2]Excludes any new SMSA's not existing prior to the census.

[3]SCSA's are not shown in PHC (1) and PHC (2).

[4]SMSA's with 250,000 population or more only.

[5]Includes only those counties containing blocked areas.

[6]Includes only counties which have census tracts.

[7]Incorporated places only. Census designated places are excluded.

[8]Only places or MCD's in which statistics are collected by block.

[9]Also includes central cities with fewer than 50,000 population.

[10]Central cities of SMSA's with 250,000 population or more only.

[11]For MCD's in the 9 northeastern states plus Michigan and Wisconsin data are also provided which parallel those of places in the size classes stated above.

[12]Only MCD's in which data are collected by block, and only in 20 states where MCD's are functioning general purpose governments. No CCD's are shown.

[13]Only those MCD's which are functioning general purpose governments are included. No CCD's are shown.

[14]Census tracts in areas where there are no blocks omitted.

[15]Includes Alaska Native Villages.

Source: Page 340 in Kaplan and Van Valey, *op. cit.*

These Summary Tape Files (STF) vary by geographic levels, detail of information, and whether the information is from the sample or 100 percent questionnaire. STF1 and STF2 provide data from the 100 percent questionnaire, but STF1 provides the maximum possible detail by geographic level, down to the block or enumeration district level, while STF2 provides more detail on questionnaire items by race, with less geographic detail, down to the tract or MCD/CCD level. Summary Tape Files 3, 4, and 5 provide information from the sample questionnaire, with differing levels of geographic and subject detail. STF3 provides detail down to the block group or enumeration district level, STF4 down to the tract or MCD/CCD level. STF5 has data for SMSA's and central cities of SMSA's. To make these data more accessible during this decade, the tables on STF1 and 3 for the geographic areas on each tape are also available on microfiche.

Table 3 provides a summary of the different geographic levels that are available on each tape. An advantage of computer tapes is that the amount of data available on them does *not* decrease with the decreasing size of geographic units. Usually, the same data is available for even the smallest geographic unit listed on a Summary Tape File.

Other sources of demographic data. Although the decennial censuses provide a wealth of information, they occur only once every ten years. Other sources of demographic data are available at both the state and national level to fill this gap.

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Table 3. Geographic units covered in summary tape files from the 1980 Census

Geographic Unit	Summary Tape File				
	STF 1[1]	STF 2	STF 3[1]	STF 4	STF 5
United States	X	X	X	X	X
State	X	X	X	X	X
SMSA's and SCSA's	X	X	X	X	X
Urbanized areas	X	X	X	X	
Counties	X	X	X	X	X
Rural population by county	([2])	X	([2])	X	
Farm population by county				X	
Places (by population size):					
Under 1,000	X		X		
1,000 to 2,500	X	X	X		
2,500 to 10,000	X	X	X	X	
10,000 to 50,000	X	X	X	X	
50,000 and over[3]	X	X	X	X	X
Minor civil divisions or Census County divisions	X	X	X	X[4]	X[3]
Census tracts	X	X	X	X	
Block groups or enumeration districts	X		X		
Blocks	X				
Congressional Districts	X				
Indian Reservations	([2])	X	([2])	X	

U.S. Data are presented in separate U.S. Summary files in each series.

[1]Also available on microfiche

[2]Derivable by addition of component enumeration districts or block groups.

[3]Also includes central cities with fewer than 50,000 inhabitants.

[4]Only MCD's and CCD's with 2,500 or more inhabitants are included.

[5]Available for MCD's only.

Source: Page 339 in Kaplan and Van Valey, *op. cit.*

The Census Bureau conducts the Current Population Survey frequently during the year, and uses this to update information on school enrollments, fertility, mobility, age, racial trends, employment, household formation, etc. This information is released in a series called *Current Population Reports,* but it is generally provided only at the national level, although occasionally state level data are issued. The *Current Population Reports* are a good source of information on broad national trends, but may not help local areas.

The Census Bureau also conducts the agricultural census during years that end with "2" and "7". Data on items such as farm size and numbers, crops and livestock, and payroll, employees and establishments by industrial sectors, are available down to the county level. Economic data are also available in the form of a report titled *County Business Patterns* which is issued yearly.

State agencies usually provide county level updates on employment and unemployment and school enrollment trends as well as on births, deaths, marriages, and divorces. In addition, one agency in each state is generally responsible for providing yearly estimates of county and incorporated area populations.

Where to find census and other population data. Many libraries, particularly those located on college and university campuses, are depository libraries for U.S. census data. This means that they have printed data from previous censuses, as well as 1980 census data. Usually depository libraries receive printed data for all states.

Since 1970 the Census Bureau has worked to make its data more accessible, which has resulted in the formation of a Data User Service Division with regional offices throughout the United States, and in work with each state to establish a state data center.

In the west, Data User Services offices are located in Denver, Los Angeles, San Francisco, and Seattle. The address and phone numbers for each is shown in Table 4. These offices handle requests for information in addition to sponsoring conferences and workshops on census data and their use. The offices also have a large number of publications which provide a wide variety of information on the sources of census data, and on other aspects of the census. Often these are available on a single copy basis at no charge.

Perhaps a more important development for better dissemination and use of census and other population data is the formation of State Data Centers. Generally, these consist of a lead agency, participating agencies, and affiliate data centers—each with somewhat different responsibilities for the dissemination of data. Each western state now has a data center, and the name and address of the key contact person in each state is provided in Table 4.

Conclusion

The population of a local area is always changing. If these changes are gradual, areas can often perceive and plan for the implied outcomes. In recent years, however, communities have been faced with broad and fairly rapid changes. Some of these changes have come about because the area's resource base could no longer support the resident population, and many residents had to move (or at least consider moving) elsewhere to stay employed. In other cases, areas with a history of population loss, "turned around" and started to grow.

Coupled with these community-specific trends have been broad national trends which have changed rapidly in recent years. Fluctuations caused by the baby boom and bust have modified the age structures of most local areas. Other

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Table 4. Sources of population data in the west

Satellite Regional/Offices of the Census Bureau

Denver, Colorado 80226
P.O. Box 26750
7655 Mississippi Avenue
(303) 236-2200

Los Angeles, California 90049
8th Floor
11777 San Vincente Boulevard
(213) 209-6612

San Francisco, California 94102
P.O. Box 36033
450 Golden Gate Avenue
(415) 556-6372

Seattle, Washington 98174
Lake Union Building
1700 Westlake Avenue
(206) 442-7080

State Data Centers and Key Contact Persons

Alaska
Mr. Brian Rae
Department of Labor
P.O. Box 25504
Juneau, AK 99802-5504
(907) 465-4500

Arizona
Ms. Betty Jeffries
The Arizona Dept. of
Economic Security
1300 W. Washington, 1st Floor
P.O. Box 6123-045Z
Phoenix, AZ 85005
(602) 255-5984

California
Ms. Linda Gage, Director
State Census Data Center
Dept. of Finance
1025 P Street
Sacramento, CA 95814
(916) 322-4651

Colorado
Mr. Reid Reynolds
Division of Local Government
Colorado Department
of Local Affairs
1313 Sherman Street, Rm. 250
Denver, CO 80203
(303) 866-2156

Hawaii
Mr. Bob Stanfield
State Dept. of Planning
and Economic Development
P.O. Box 2359
Honolulu, HI 96804
(808) 548-3082

Idaho
Mr. Alan Porter
Department of Commerce
700 W. State Street
State Capitol Building
Room 108
Boise, ID 83720
(208) 334-3416

Montana
Ms. Patricia Roberts
Census and Economic
Information Center
Montana Dept. of Commerce
1429-9th Street
Capital Station
Helena, Mt 59620-0401
(406) 444-2896

Nevada
Ms. Patricia Deadder
Nevada State Library
Capital Complex
401 North Carson
Carson City, NV 89710
(702) 885-5160

New Mexico
Ms. Carol Selleck
Economic Development
and Tourism Dept.
Bataan Memorial Building
Santa Fe, NM 87503
(503) 827-6200

Oregon
Mr. Jon Roberts
Intergovernmental Relations
Division
155 Cottage St., N.E.
Salem, OR 97310
(503) 373-1996

Utah
Ms. Natalie Gochnour
Office of Planning and Budget
State Capitol, Room 116
Salt Lake City, UT 84114
(801) 533-6082

Washington
Mr. Lawrence Weisser
Policy Analysis and
Forecasting Division
Office of Finan. Management
Insurance Bldg., Rm. 320, AQ-44
Olympia, WA 98504-0201
(206) 586-2808

Wyoming
Mr. Fred G. Doll
Institute for Policy Research
University of Wyoming
Laramie, WY 82071
(307) 766-5141

changes that have occurred more rapidly in the past decade include the ways we live together (or apart), and women's participation in the labor force. These changes have been felt in nearly all types of local areas.

Knowledge of how the population of an area is structured and how it is changing will not solve the problems created by the changes, but it will provide a basis for understanding the needs of an area and for better program planning.

[1] A number of characteristics could be covered in this section, including racial characteristics, industrial mix, housing stock, etc. Because space is limited, population characteristics and trends were selected that could be most easily generalized to a wide range of areas. For additional information on these or other characteristics, please refer to the headings in Appendix B.

[2] Gene F. Summers and Thomas A. Hirschl, "Retirees as a Growth Industry." Rural Development Perspectives. February, 1985.

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Appendix A.

Definitions for geographic units used by the Census Bureau

The nation.

Regions. Using state boundaries, the United States is divided into four regions: West, South, Northeast, and North Central.

Divisions. Each region is divided into two or more groupings of states, called divisions. There are two divisions in the western region.

Pacific Division. Washington, Oregon, California, Alaska, and Hawaii.

Mountain Division. Idaho, Nevada, Montana, Wyoming, Colorado, Utah, New Mexico, and Arizona.

States. These are, of course, the major political divisions in the United States. The Census Bureau treats the District of Columbia as a state in issuing data.

U.S. Congressional Districts. These areas are defined by State Legislatures for the purpose of electing persons to the U.S. House of Representatives.

Places. This refers to a concentration of population regardless of the existence of legally prescribed functions. *Incorporated Places* are those which are legally chartered under state laws. *Census Designated Places,* sometimes denoted as CDP's, refer to unincorporated places that are densely settled population centers but without legally defined limits or corporate powers. These usually have a population density of 1,000 persons per square mile and a place name.

Counties. These are the major political and administrative divisions within most states.

Minor Civil Divisions or Census County Divisions. Counties are subdivided into either Minor Civil Divisions, often referred to as MCD's, or into Census County Divisions, CCD's.

Minor Civil Divisions. MCD's are existing governmental units used by the Census Bureau in 28 states. Usually these are townships, but they may also be towns, precincts, and magisterial districts, and they represent important political administrative subdivisions in the counties.

Census County Divisions. CCD's are used by the Census Bureau in those states where MCD's do not exist or are inadequate for issuing data. These are defined with boundaries that seldom change and can be easily located using physical features. Large incorporated places are usually recognized as separate CCD's even though their boundaries may change through annexations. Cities with 10,000 or more persons are generally separate CCD's, and some incorporated places with as few as 1,000 persons may be separate CCD's in rural areas. Data are issued by CCD's in the following states: Alabama, Arizona, California, Colorado, Delaware, Florida, Georgia, Hawaii, Idaho, Kentucky, Montana, New Mexico, North Dakota, Oklahoma, Oregon, South Carolina, Tennessee, Texas, Utah, Washington, and Wyoming.

Enumeration Districts. Often referred to as ED's, these units are designed primarily for the collection of census data and represent the area assigned to one enumerator. If census questionnaires are collected door-to-door, this area usually represents 250 households, or around 800 persons. In areas where questionnaires are returned by mail, there are approximately twice as many households in an enumeration district. These are subdivisions of larger areas (census tracts, MCD's, or CCD's) and do not cross the boundaries of these larger areas.

Block Groups. Often referred to as BG's, these units are groupings of neighboring blocks with a population of about 1,000 persons. These exist only for areas where city blocks are used for tabulation purposes.

MSA

Metropolitan Statistical Areas. (MSA; previously called Standard Metropolitan Statistical Areas, SMSA's.) Counties with (1) a central city of 50,000 persons; or (2) an urbanized area with 50,000 persons if it is located in a county or counties with a total population of 100,000. Additional counties are included as part of an MSA if they are economically and socially integrated with the original county. (This is determined primarily by the number of workers who commute from the outlying county to the central county.)

Metropolitan Counties. Counties that are part of an SMSA. All other counties are nonmetropolitan counties.

Census Tracts. These are small (averaging 4,000 persons), relatively permanent areas into which metropolitan and certain other areas are divided for the purpose of providing statistics for small areas that will be comparable over time. When they are formed, the tracts are designed to be relatively homogeneous areas with respect to population characteristics, economic status, and living conditions. All MSA's in the 1980 census were completely divided into tracts, in addition to some areas outside of the MSA's.

Enumeration Districts and Block Groups. See above.

Blocks. A block is a well-defined piece of land bounded by streets, roads, railroad tracks, etc. Blocks are always subdivisions of census tracts. They are the smallest areas for which census data are tabulated and only data from the 100 percent questionnaire are provided for these areas.

All areas

Urban. The urban population of the United States consists of all persons living in urbanized areas and in urban places.

Urbanized Area. An urbanized area or UA contains a central city, or twin cities, with a population of 50,000 (as with MSA's) and the surrounding, closely settled incorporated and unincorporated areas, which meet certain criteria of population size or density i.e., the *urban fringe.* UA's do not include the rural areas of MSA's.

Urban Places. These are places of 2,500 or more. Although these are usually incorporated, the Census Bureau may define an unincorporated place of 2,500 or more as an urban place.

Rural. That portion of the population not classified as urban constitutes the rural population of the United States.

Rural Farm. All rural households living on farms. (As of 1975, a farm was any place from which $1,000 or more of agricultural products were sold or would have been sold during the census year.)

Rural Non-Farm. All other rural areas, including rural places, or concentrations of population with less than 2,500 persons.

Additional areas.

The Census Bureau also provides data for:

Standard Consolidated Statistical Areas. Two or more contiguous MSA's that are strongly interrelated socially and economically. For example, in Washington, the Seattle-Tacoma metropolitan areas are so defined.

Zip Code Areas. The Census Bureau has provided data by zip code from the 1980 Census. These data are available only on computer tape.

Appendix B

Additional references

This overview of population change and sources of data is necessarily limited, however, there are a number of other sources that may be investigated.

Most introductory population texts concentrate on international topics and trends, but the following textbook uses examples from the United States, as well as other countries, in covering basic concepts, methods and topics.

Newman, James L. and Gordon Matzke. *Population Patterns, Dynamics and Prospects.* Prentice Hall, Englewood Cliffs, N.J., 1984.

An excellent short introduction to techniques used in the analysis of population processes in state and local areas is:

River, Norfleet W., Jr., and William J. Serow. *Introduction to Applied Demography: Data Sources and Estimation Techniques.* Sage Publications, Beverly Hills, CA, 1984.

The following two references provide an overview of several different methods for estimating the population (and in the second reference, income) of counties and smaller areas between census.

Lee, Everett S. and Harold Goldsmith, eds. *Population Estimates: Methods for Small Area Analysis.* Sage Publications, Beverly Hills, CA. 1982.

National Research Council. *Estimating Population and Income of Small Areas.* National Academy Press, Washington, D.C. 1980.

Two sources that provide easy to read, yet insightful discussions of current population trends in the United States, are:

Sternlieb, George and James W. Hughes. *Current Population Trends in the United States.* Center for Urban Research, New Brunswick, NJ, 1978.

Sternlieb, George, James W. Hughes, and Connie O. Hughes. *Demographic Trends and Economic Reality: Planning and Markets in the '80's.* The State University of New Jersey, Rutgers, NJ 1982.

There are several ways of keeping up on population trends and sources of information. First and foremost, is to get on the mailing list for any information sent out by your state's Data Center (see Table 4). Second, you can have your name placed on a mailing list to receive news releases (without cost) from the U.S. Department of Commerce (phone number for the Public Information Office is 301-763-4040). You will receive one or two-page summaries of information being released by that office and ordering information for complete copies (sometimes also free) if more detail is desired.

The following two publications offer excellent summaries of current population trends and issues.

American Demographics. The current-issues news magazine of demography owned by the Dow Jones Company and published eleven times each year. Many articles are strongly oriented to a business perspective, but many are also of interest to planners. Address: P.O. Box 68, Ithaca, New York 14851.

Population Bulletin. Each bulletin covers a specific issue; some deal with the U.S. population, others with international trends. Published four times each year by the Population Reference Bureau. Address: 1337 Connecticut Avenue, NW, Washington, D.C. 20036. Issues of possible interest since 1980 include:

The Sunning of America: Migration to the Sunbelt, by Jeanne C. Biggar; Vol. 34, No. 1.

The 1980 CensusS: The Counting of America, by Peter K. Francese; Vol. 34, No. 4.

America's Baby Boom Generation: The Fateful Bulge, by Leon F. Bouvier, Vol. 35, No. 1.

America's Elderly in the 1980's, by Beth J. Soldo, Vol. 35, No. 4.

U.S. Women at Work, by Linda J. Waite, Vol. 36, No. 2.

The Changing U.S. Farmland Scene, by Michael Brewer, Vol. 36, No. 4.

U.S. Population: Where We Are; Where We're Going, by Population Reference Bureau Staff; Vol. 37, No. 2.

Black America in the 1980's, by John Reid, Vol. 37, No. 4.

U.S. Hispanics: Changing the Face of America, by Cary Davis, Carl Haub and JoAnne Willett, Vol. 38, No. 3.

Delayed Childbearing in the U.S.: Facts and Fictions, by Wendy H. Baldwin and Christing Winquist Nord, Vol. 39, No. 4.

Poverty in America: Trends and New Patterns, by William P. O'Hare, Vol. 40, No. 3.

Asian Americans: Growth, Change and Diversity, by Robert W. Gardner, Bryant Robey and Peter C. Smith, Vol. 40, No. 4.

Demographics and Housing in America, by George Sternlieb and James W. Hughes, Vol. 41, No. 1.